

**METHOD AND APPARATUS FOR FACILITATING MANUAL
PAYMENTS FOR TRANSACTIONS CONDUCTED OVER A NETWORK**

BACKGROUND OF THE INVENTION

1. Technical Field

The present invention pertains to systems for conducting transactions over a network. In particular, the present invention pertains to a system that conducts transactions (e.g., paying bills, sales of goods and/or services, etc.) over a network and enables users to tender payment manually (e.g., tender payment in the form of cash, check, etc.) for those transactions.

2. Discussion of Related Art

Generally, consumers engage in various transactions in order to obtain desired and/or necessary goods and/or services. These transactions typically require the consumer to travel to the physical site of the service and/or goods provider to conduct the transaction. For example, the consumer may travel to a retail establishment to purchase and tender payment for a desired item. Alternatively, services (e.g., utilities, banking services, credit cards, etc.) may be retained on a billing basis where consumers receive a billing statement periodically that indicates an account balance and requests payment for the retained services. The consumer may tender or remit payment for the above-described transactions in various forms. For example, payment may be mailed to a creditor or provider within a reasonable period after receiving a billing statement, or a credit card or cash may be presented to a provider at provider designated locations (e.g., provider office, retail establishment offering the item or service for sale, etc.). In addition, consumers may tender payment for particular transactions (e.g., paying bills) to agents residing at varying locations (e.g., retail establishments, malls, grocery stores, etc.) and affiliated with various creditors and/or providers. These agents generally process received consumer payments in order to provide a consolidated payment to each creditor and/or provider for corresponding consumer transactions. The agents generally tender payment to the creditors and/or providers in the form of a check, or provide a file of consumer payment information to the creditors and/or providers and tender payment in the form of electronic funds transfer. However, these manners of conducting and remitting payment for transactions tend to become cumbersome. Further, consumer payments received

1 by the agents typically require various processing to determine the consolidated payment or
2 sophisticated electronic formatting in batch mode to provide the consumer payment file in a
3 desired file format (e.g., CIE, CIX, EDI). This tends to create delays for the transaction to be
4 processed, while producing various payment rejections during transaction processing due to
5 inconsistent account information.

6 The related art has attempted to overcome these problems by providing various
7 systems that facilitate performance of consumer transactions remotely. For example,
8 International Publication No. WO 01/16768 (Sosa et al) discloses an online purchase system
9 that provides a universally accessible, anonymous and secure online payment option for
10 consumers. A user pays cash and receives a serial number. The serial number may be
11 imprinted on a cash card or the like for convenience. The user accesses an online proxy
12 system using the serial number, thereby establishing a cash account and allowing the user to
13 conduct online transactions using that account. The proxy system includes at least one
14 universally accepted charge account that is used to conduct transactions on behalf of the user.
15 The user surfs the Internet for goods and services of online merchants. The user selects items
16 to purchase and indicates the desire to purchase the selected items by selecting or interfacing
17 a buy button or the like. The proxy system intercepts the purchase request, compares the
18 user's account balance with the total purchase amount to verify sufficient funds, adjusts the
19 account balance if there are sufficient funds, and populates a purchase page from the merchant
20 with valid charge account information to complete the purchase. The cash cards may be
21 dispensed at a currency receiving vending machine, a dispensing unit or the like.

22 International Publication No. WO 01/11515 (Doherty et al.) discloses a system to
23 make electronic payments on the Web. This system provides anonymity, security and
24 accountability. A prepaid stored value card including a cash card identification number for
25 a predetermined amount of money may be purchased at a point-of-sale. A user visits a web
26 merchant, selects an item to purchase and enters the cash card identification number and a
27 personal security code to transmit for confirmation to the server. The server subtracts the cost
28 of the item from the predetermined amount on the cash card.

29 U.S. Patent No. 6,058,381 (Nelson) discloses a payment system suitable for network
30 transactions in merchandise between purchasers and vendors. The system employs the
31 services of guarantors which issue vouchers for payment. The vendors offer the merchandise

1 on the network as URLs which optionally may include a URL address separated from a URL
2 request. The URL or the URL address initially includes the network address of the guarantor
3 and specifies particular merchandise. In response to selecting the URL, the purchaser is
4 initially taken to the guarantor where the voucher is placed into the URL or the URL request,
5 while the network address of the vendor is placed into the URL or the URL address. The
6 purchaser is then redirected to the vendor where the voucher is accepted as payment before
7 the vendor releases the merchandise for communication over the network to the purchaser.

8 U.S. Patent No. 5,699,528 (Hogan) discloses a bill delivery and payment system where
9 users are able to access a server computer on a communications network to obtain bill
10 information and pay bills. The communications network may be the Internet or World Wide
11 Web. A user may access a web site provided by the server computer via a personal computer
12 to view the bill information and to instruct the server computer as to the details of the bill
13 payment.

14 U.S. Patent No. 5,943,656 (Crooks et al) discloses a computerized billing and payment
15 authorization system. A host system includes a database in which information associated with
16 a billable entity from which payment is to be received is stored. Billing information is
17 received from a billing entity and is associated with a bill for payment by the billable entity.
18 The billable entity is provided with remote electronic access to the billing information in the
19 host computer and can authorize payment thereof. In one implementation, the billing
20 information is scrutinized in accordance with predetermined tolerance parameters prior to the
21 billable entity gaining access thereto. In another implementation, a plurality of billing entities
22 provide billing information to the host system, with the billing information being subsequently
23 checked and consolidated into a consolidated amount which can be remotely accessed by the
24 billable entity. In a preferred implementation, a plurality of utility providers are incorporated
25 into the system and provide billing information for customers which may have a number of
26 different, geographically-separated sites being serviced by different utilities. The billing
27 information is consolidated and made available electronically through access which is
28 initiated by the customer. The systems and methodologies are preferably implemented in
29 connection with a multiuser computer network, such as the Internet.

30 U.S. Patent No. 5,825,881 (Colvin, Sr.) discloses a system for conducting commerce
31 over a large public network, such as the Internet. The system facilitates communications

1 between a merchant, a customer and a bank or credit card processor. In particular, the
2 customer may select products to purchase by accessing a merchant's web site and clicking on
3 one or more links that place the products in a virtual shopping cart. The customer then clicks
4 a checkout link that causes an itemized price list to be downloaded to the customer's
5 computer. Once downloaded, this information is merged with information locally stored on
6 a customer's computer. The customer's computer then adds sales tax information and sends
7 this information along with a shipping address back to the merchant. Credit card information
8 from the customer is sent directly to the financial institution such that the merchant never
9 receives the customer's credit card information. The financial institution informs the merchant
10 that the transaction is complete.

11 The above-described systems of the related art suffer from several disadvantages. In
12 particular, the related art systems tend to require the use of pre-existing monetary or credit
13 card accounts to conduct transactions remotely (i.e., over the Internet), thereby limiting
14 manners of facilitating consumer payment and restricting use of the systems to consumers that
15 can establish the required accounts. Further, various web sites may utilize different and
16 independent accounts to conduct transactions. Thus, the consumer is provided with the
17 cumbersome tasks of managing several accounts and correlating each account with the
18 appropriate web site in order to conduct transactions. Moreover, the related art systems
19 generally require users to have access to personal computers or other devices in order to
20 facilitate performance of the transactions, thereby limiting system availability to a reduced
21 consumer base. The related art systems accepting payment via credit cards tend to expose a
22 consumer to the risk of finance charges and/or accumulation of debt. These systems further
23 transfer consumer financial information between remote systems communicating over the
24 Internet in order to complete a transaction, thereby exposing that information to interception
25 by illegitimate parties for unjust gain. In addition, consumer payment and other information
26 utilized to conduct transactions is typically stored by the related art systems, thereby infringing
27 upon consumer privacy.

28 OBJECTS AND SUMMARY OF THE INVENTION

29 Accordingly, it is an object of the present invention to facilitate tender of payment
30 manually (e.g., tender of payment in the form of cash, check, etc.) for transactions conducted
31 over a network.

1 It is another object of the present invention to conduct transactions over a network
2 while maintaining consumer anonymity and privacy.

3 Yet another object of the present invention is to enable consumers without possession
4 of a computer system to conduct transactions over a network.

5 The aforesaid objects are achieved individually and/or in combination, and it is not
6 intended that the present invention be construed as requiring two or more of the objects to be
7 combined unless expressly required by the claims attached hereto.

8 According to the present invention, a system enables a customer to tender payment
9 manually (e.g., tender payment in the form of cash, check, etc.) for transactions conducted
10 over a network (e.g., the Internet). The system includes one or more computer systems each
11 located at a corresponding agent site and a server computer system disposed remote from the
12 agent systems. The server computer system is in communication, via the network, with the
13 agent computer systems and one or more merchant computer systems facilitating performance
14 of transactions. Selection of a transaction and navigation of the network is facilitated by the
15 agent and server systems, respectively.

16 A consumer or customer typically travels to an agent site and tenders payment,
17 preferably manually (e.g., tenders payment in the form of cash, check, etc.), in order to
18 conduct a transaction (e.g., pay a bill, purchase an item, etc.) over the network. Specifically,
19 a desired transaction is selected and entered into the agent system located at that agent site for
20 transference to the server computer system. The server computer system accesses the
21 appropriate merchant network or web site hosted on a merchant computer system in response
22 to selection information received from the agent system, and translates accessed merchant web
23 pages for transmission to the agent system. In particular, the server computer system accesses
24 the particular merchant computer system and corresponding merchant web site containing the
25 selected transaction and determines the appropriate information required to conduct that
26 transaction. The server computer system informs the agent system of the information required
27 for the transaction, while the information and manual payment is received from the customer
28 at the agent site. The server computer system receives the required information from the
29 agent system and processes the transaction information for transference to the merchant
30 computer system hosting the particular merchant web site. In addition, the server computer
31 system enters information relating to a corporate credit card account of a provider of the

1 transaction service within the transaction payment information for transference to the
2 merchant system in order to tender payment for the network transaction. The agent system
3 generates a receipt for the customer in response to receiving confirmation from the merchant
4 system, via the server computer system, that the selected transaction has been processed. The
5 transaction information may be utilized by the merchant system to update any consumer
6 account or other balances relating to the processed transaction.

7 The present invention provides several advantages. For example, the present invention
8 enables transactions to be conducted over a network without the need for customers or
9 provider agents to utilize credit, debit or smart cards. Thus, the present invention provides
10 network transaction capabilities to consumers without possession of these types of cards,
11 financial accounts or computer systems, thereby expanding service and/or goods provider
12 accessibility to consumers. This feature of the present invention further simplifies the
13 transaction for customers and/or provider agents since transactions may be conducted with
14 reduced data entry (e.g., entry of financial card information is not required by the agent system
15 for the transaction). Further, the present invention processes transactions upon entry into the
16 system, thereby minimizing the time delay for a transaction to be processed. This feature
17 further enhances resolution of transactions rejected during processing since these transactions
18 may be immediately modified and re-submitted. Moreover, the present invention incurs lower
19 operating costs due to reduced processing and performance of transactions without bank
20 intervention and corresponding banking fees (e.g., for electronic funds transfer, etc.), thereby
21 facilitating reduced transaction costs to consumers. In addition, the present invention enhances
22 reliability with respect to transaction processing.

23 BRIEF DESCRIPTION OF THE DRAWINGS

24 Fig. 1 is a schematic diagram of a system for facilitating tender of payments manually
25 for transactions conducted over a network according to the present invention.

26 Fig. 2 is a procedural flowchart illustrating the manner in which the system of Fig. 1
27 facilitates tender of payments manually for transactions conducted over a network according
28 to the present invention.

29 Fig. 3 is a procedural flowchart illustrating the manner in which a connection is
30 established between the transaction and merchant server systems.

31 Fig. 4 is a procedural flow chart illustrating the manner in which the transaction

1 system processes information received from the merchant system for transference to the agent
2 system.

3 Fig. 5 is a procedural flow chart illustrating the manner in which the transaction
4 system processes payment information received from the agent system for transference to the
5 merchant system.

6 Fig. 6 is a procedural flow chart illustrating the manner in which the transaction
7 system processes confirmation information received from the merchant system for
8 transference to the agent system.

9 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

10 A system for facilitating tender of payments manually (e.g., tender of payments in the
11 form of cash, check, etc.) by consumers or customers for transactions conducted over a
12 network according to the present invention is illustrated in Fig. 1. Specifically, system 2
13 includes agent computer systems 4, transaction server system 8 and merchant server systems
14 10. Transaction system 8 is in communication with the agent and merchant systems via a
15 network 6 (e.g., the Internet). Transaction system 8 serves as an interface or transaction
16 manager and transfers transaction information between the agent and merchant systems.
17 Agent systems 4 typically reside at different remote or agent sites (e.g., local retail
18 establishments, etc.), while transaction system 8 typically resides at a site remote from the
19 agent systems and facilitates performance of transactions (e.g., pay various obligations (e.g.,
20 bills, parking ticket, child support, etc.), purchase goods and/or services, etc.) with merchant
21 systems 10 as described below. The merchant systems are associated with merchants or
22 providers of goods and/or services and are generally located at sites remote from each other
23 and the transaction and agent systems. The transaction system basically receives a request for
24 performance of a selected transaction from an agent system 4, and accesses the appropriate
25 web site hosted on the particular merchant system that facilitates performance of the selected
26 transaction. The transaction system processes pages of the web site to determine the
27 information required for the selected transaction and requests the information from the agent
28 system. The agent system receives the requested information from a customer and transfers
29 the requested information to the transaction system for transference to the merchant system.
30 A customer tenders payment for the selected transaction manually (e.g., tenders payment in
31 the form of cash, check, etc.) at the agent site, while transaction system 8 transfers the

1 requested information and payment information of a provider of the transaction service to the
2 merchant system in order to complete the selected transaction. A receipt is generated for the
3 customer by the agent system in response to receiving from the transaction system transaction
4 confirmation information generated by the merchant system. By way of example only, system
5 2 includes two agent systems 4, a transaction system 8 and three merchant systems 10,
6 however, the system may include any quantity of agent, transaction and merchant systems.

7 Agent system 4 is typically implemented by a conventional IBM-compatible or other
8 type of personal computer or processing system (e.g., lap top, desktop, PDA, modified point
9 of sale or credit card terminals, etc.) preferably equipped with a monitor 20, a base 22 (e.g.,
10 including the processor, memories, and internal or external communication devices or
11 modems), keyboard 24 and an optional mouse 26 or other input device (e.g., voice
12 recognition, etc.). Agent system 4 includes the appropriate software to perform transaction
13 processing and communicate with transaction system 8 (e.g., transaction software, Internet
14 Browser (e.g., Microsoft Internet Explorer 5.0), etc.), and appropriate components (e.g.,
15 processor, disk storage or hard drive, etc.) having sufficient processing and storage
16 capabilities to effectively execute the software. The agent system preferably employs a
17 Windows 95/98 operating system, however, any of the major platforms or operating systems
18 (e.g., Windows, Macintosh, Unix, Linux, DOS, OS2, etc.) may be utilized. The agent system
19 preferably includes at a minimum an Intel or equivalent processor and an appropriate amount
20 of RAM to effectively execute the software. The agent system typically includes a printer 28
21 for printing various documents relating to a transaction and may further include any additional
22 hardware, software or peripherals (e.g., voice recognition, scanner, etc.) to assist in
23 performing the transaction. Alternatively, agent system 4 may be disposed within a kiosk or
24 other structure for use by customers and include mechanisms to receive and disburse payment
25 in the form of cash, checks or other instruments. The kiosk may be located at various sites
26 (e.g., retail stores, malls, etc.) to facilitate tender of payment manually (e.g., tender of payment
27 in the form of cash, check, etc.) for transactions conducted over network 6 in the manner
28 described below.

29 The transaction and merchant server systems are each typically implemented by a
30 conventional personal or other suitable computer or server system preferably equipped with
31 a base (e.g., including the processor, memories and internal or external communication

1 devices (e.g., modem, network cards, etc.)) and optional display and input devices (e.g.,
2 keyboard, mouse, etc.). The transaction system includes software (e.g., server software (e.g.,
3 Internet Information Server 5), transaction processing software, a data storage management
4 or database system, etc.) to communicate with agent systems 4 and merchant systems 10 and
5 process transaction information, while the merchant system includes software (e.g., server
6 software, merchant transaction software, etc.) to communicate with the transaction server and
7 process transactions. The transaction and merchant systems include appropriate components
8 (e.g., processor, disk storage or hard drive, etc.) having sufficient processing and storage
9 capabilities to effectively execute the software. The transaction system preferably employs
10 a Windows 2000 operating system, however, the transaction and merchant systems may
11 utilize any of the major platforms or operating systems. The transaction processing software
12 of the transaction system may be implemented in a variety of computing languages (e.g.,
13 Active Server pages, HTML, DHTML and XML) and enables the transaction system to serve
14 as an interface between merchant systems 10 and agent systems 4 as described below. The
15 transaction system, under software control, basically implements the present invention system
16 for facilitating tender of payments manually for transactions conducted over a network.

17 The manner in which system 2 conducts a transaction over network 6 according to the
18 present invention is illustrated in Fig. 2. Initially, a customer travels to an agent site (e.g., a
19 retail establishment, commercial enterprise, location with public access, mall, etc.) where an
20 agent system 4 resides in order to conduct a transaction. The customer travel may be
21 prompted by receipt of a billing statement from a creditor or provider affiliated with the
22 transaction service provider or by the customer's desire to conduct other consumer
23 transactions (e.g., purchase items, etc.) with affiliated merchants. A transaction service
24 provider agent typically operates the agent system and receives payment for the transaction
25 as described below. The customer may alternatively operate the agent system when accessible
26 via the kiosk. The agent system accesses network 6 (e.g., via an Internet Service Provider
27 (ISP)) and initiates a connection to transaction system 8 at step 30. Agent system 4 typically
28 stores the network address or Uniform Resource Locator (URL) of the transaction system, and
29 utilizes that address to initiate a connection to the transaction system. Alternatively, the
30 transaction service provider agent or customer may enter a network or electronic mail (e-mail)
31 address or URL of the transaction system within an agent system browser or other

1 communication software to initiate the connection.

2 Transaction system 8 initially responds to agent system 4 at step 32 by verifying that
3 the transaction service provider agent or agent system is permitted to utilize the system. In
4 particular, the transaction system transmits to the agent system an initial web page requesting
5 a user identification and password. The web page is displayed by the agent system, while the
6 requested information is entered into appropriate fields provided on the display at step 34 via
7 keyboard 24 (Fig. 1), mouse 26 and/or other input device (e.g., voice recognition). The
8 entered information is subsequently transmitted to transaction system 8 in response to
9 actuation of a web page button via mouse 26 or other input device. Alternatively, the agent
10 system may store the verification information and automatically provide that information
11 within the displayed web page or directly to the transaction system. The information is
12 received by transaction system 8 and verified at step 36 against verification or user
13 information previously stored by the transaction system. Once the agent and/or agent system
14 is verified, transaction system 8 transmits to agent system 4 a list of merchants and/or
15 corresponding transaction options. The list is displayed by the agent system and the customer
16 selects an option at step 38. Agent system 4 conveys the selection to transaction system 8 to
17 facilitate performance of the selected transaction.

18 Transaction system 8 receives the selected transaction and establishes a connection to
19 the merchant system associated with that transaction at step 40. This process is further
20 described with reference to Fig. 3. Specifically, transaction system 8 receives information
21 associated with the selected transaction from agent system 4 at step 56. The received
22 information is processed to determine the particular merchant involved in the selected
23 transaction. Once the merchant is determined, information relating to the determined
24 merchant is retrieved from a definition table at step 58. The definition table may be
25 implemented by a database or other data storage structure (e.g., file, data structure, etc.) and
26 contains information to facilitate a connection to the merchant system associated with the
27 determined merchant. The definition table typically includes merchants and corresponding
28 network addresses or URLs of network sites associated with those merchants. The transaction
29 system accesses the definition table to retrieve the network address or URL of the merchant
30 system and/or web site associated with the determined merchant. The retrieved network
31 address or URL is utilized by the transaction system at step 60 to establish a connection to the

1 merchant system associated with the selected transaction and navigate to the appropriate site
2 or web page for that transaction.

3 Referring back to Fig. 2, the merchant system retrieves and transmits the web page
4 for the selected transaction to transaction system 8 at step 42. The transaction system
5 processes the information received from the merchant system and conveys an information
6 request to agent system 4 at step 44. This process is further described with reference to Fig.
7 4. Specifically, the information transmitted from the merchant system is received by
8 transaction system 8 at step 64. The transaction system verifies that the proper web page
9 and/or information for the selected transaction is received from the merchant system at step
10 66. The verification is generally accomplished by examining the fields within the code (e.g.,
11 HTML, DHTML, XML, etc.) implementing the web page for information relating to the
12 selected transaction. The transaction system further examines the web page code at step 68
13 to determine information required by that page to conduct the selected transaction. An entry
14 screen or web page is retrieved from a database at step 70 and configured (e.g., the code (e.g.,
15 HTML, DHTML, XML, etc.) implementing the entry screen or web page is modified) to
16 request the appropriate information for the selected transaction at step 72. Basically, the entry
17 screen includes fields to receive the appropriate information where each field is associated
18 with an identifier to indicate the corresponding location or field for the requested information
19 within the merchant web page. The entry screen is generated to exclude fields requesting
20 payment information. Alternatively, the transaction system may form the entry screen by
21 modifying the web page received from the merchant system (e.g., modifying the code
22 implementing the web page) to exclude payment information. The entry screen may further
23 include promotional ads or other information and is transmitted to the agent system for
24 display.

25 Referring back to Fig. 2, agent system 4 receives the entry screen and displays that
26 screen on monitor 20 (Fig. 1). The entry screen is preferably displayed via the agent system
27 browser in substantially the same manner utilized to display web pages. The information
28 requested by the entry screen is entered into the agent system at step 46 by either the
29 transaction service provider agent or the customer as described above. The entry screen
30 typically requests various information from the customer and may be arranged in any desired
31 fashion. By way of example only, the entry screen may request information relating to

customer name, customer address, customer telephone number, customer account information (e.g., in relation to paying a bill) or any other desired information. The requested information may be entered into the agent system in various manners. For example, the transaction service provider agent or customer may enter the requested information into the agent system via keyboard 24 and/or mouse 26, or the agent system may include voice recognition features to receive the information in the form of voice signals. Further, the agent system may include a scanner to scan a customer card (e.g., drivers license or other identification) to retrieve requested information. The scanner may be of the type utilized with bar codes or employ optical character recognition (OCR) to retrieve the requested information (e.g., name, address, etc.). Moreover, the scanner may be utilized to scan a customer billing statement to retrieve customer information (e.g., name, address, account information, etc.) for paying bills. In addition, the agent system may store customer information locally where entry of an initial field of information (e.g., name, telephone number, etc.) enables the agent system to retrieve customer information for the remaining fields from the stored information. This is typically utilized for repeat customers and reduces the amount of data entry required to conduct a transaction.

The entry request screen typically further includes an amount field indicating the payment required for the transaction (e.g., the amount being tendered by the customer to pay a bill, the total amount of a purchase or bill, etc.). The payment amount generally includes a processing fee charged by the transaction service provider. This fee may be distributed in any desired manner among the agents, merchants and transaction service provider. The customer subsequently tenders payment manually (e.g., tenders payment in the form of cash, check, etc.) at the agent site. This may be accomplished by the customer tendering payment to the transaction service provider agent, or by the customer inserting the payment within a system payment accepting mechanism in the case where the agent system is operated by the customer and/or disposed within a kiosk. The agent may enter into the agent system the amount tendered, or the payment accepting mechanism may automatically determine the tendered amount, while the agent system generally indicates any underpayment by, or change due to, the customer. Change may be provided to the customer by the transaction service provider agent or by the payment accepting mechanism, while an underpayment causes the agent system to prompt for additional funds in order to facilitate the transaction.

Alternatively, the payment amount may be determined and tendered at any point during commencement of the transaction.

Once the information requested by the entry screen is entered, the entered information is transmitted from agent computer system 4 to transaction system 8. The transaction system processes the received information for transference to the merchant system at step 48. This process is further described with reference to Fig. 5. Initially, the transaction system receives the completed entry screen from agent system 4 at step 76. The information provided by the customer is extracted from the entry screen at step 78. The extracted information is inserted into the appropriate locations or fields of the merchant web page at step 80 in accordance with the field identifiers of the entry screen. In order to complete the transaction, payment information is further placed within the appropriate fields of the merchant web page by the transaction system. The payment information preferably includes information relating to a credit card account of the transaction service provider. However, the payment information may include any information of the transaction service provider that facilitates payment in any desired manner (e.g., bank by telephone, account and routing information for electronic funds transfer, etc.). The transaction system logs or records the transaction and corresponding information (e.g., transaction type, amount, merchant, etc.) in a database or other storage structure at step 82. The stored information is utilized by the transaction system to generate management or closeout reports (e.g., including aggregate amounts of transactions, quantity of transactions, etc. for a particular time interval (e.g., day, week, month, etc.)) and to perform audit processing (e.g., examine transactions, determine various aggregate amounts for time intervals, etc.). The merchant web page containing the inserted information is transmitted to the merchant system at step 84. In addition, the transaction system transmits any additional merchant web pages and information required for the transaction to the merchant system at step 86 to facilitate transaction processing.

Referring back to Fig. 2, the merchant system receives the web pages and any additional transaction information from the transaction system and processes the transaction at step 50. This typically includes verifying customer and payment information, facilitating transfer of funds for payment of the transaction and updating customer account or other balances with the merchant. Once the transaction is processed, the merchant system transmits confirmation of the completed transaction to the transaction system. The transaction system receives and processes the confirmation at step 52 for transference to the agent system. This

process is further described with reference to Fig. 6. Initially, the confirmation information (e.g., a confirmation number or identifier, date and time of transaction, amount tendered, merchant, etc.) transmitted by the merchant system is received by transaction system 8 at step 88. The confirmation information is logged or recorded in a database or other storage structure at step 90. This information may further be utilized to generate management or closeout reports and perform audit processing as described above. The transaction system processes the confirmation information to produce confirmed transaction information for the agent system at step 92. This information is transmitted to the agent system at step 94 and utilized to display the confirmation and print a transaction receipt for the customer as described below.

Referring back to Fig. 2, the agent computer system receives the confirmed transaction information and displays the confirmation on monitor 20 and further prints a receipt for the customer at step 54. The receipt may include various transaction information (e.g., date, time, amount tendered, type of transaction, merchant, confirmation identifier, etc.). The agent system may store various transaction information in a database or other storage structure to enable the agent system to generate management or closeout reports and perform audit processing as described above.

It will be appreciated that the embodiments described above and illustrated in the drawings represent only a few of the many ways of implementing a method and apparatus for facilitating manual payments for transactions conducted over a network.

The agent, transaction and merchant computer systems may be implemented by any quantity of any personal or other type of computer or processing system (e.g., IBM-compatible, Apple, Macintosh, laptop, palm pilot, PDA, modified point of sale or credit card terminals, etc.). The computer systems may include any commercially available operating system (e.g., Windows, OS/2, Unix, Linux, etc.) and any commercially available or custom software (e.g., server software, browser and/or other communication software, transaction software, transaction processing software, merchant transaction software, etc.). The computer systems may further include any types of input devices (e.g., keyboard, mouse, voice recognition, scanners, touch-screen, etc.), and be disposed at any desired sites either remote from or local to each other in any desired fashion. The agent computer systems may be configured in any manner and/or disposed in any suitable structure (e.g., kiosk, stand, etc.) for manned (e.g., an agent operates the agent system) or unmanned (e.g., customer operates the

agent system) operation. The computer systems of the present invention may alternatively be implemented by hardware or other processing circuitry. The various functions of the computer systems may be distributed in any manner among each other, among any quantity of computer or processing systems or circuitry and/or among any quantity of software and/or hardware modules.

The network may be implemented by, and the computer systems may communicate via, any communications medium or network (e.g., LAN, WAN, Internet, Intranet, direct connection, e-mail, etc.). The agent, transaction and merchant computer systems may include any conventional or other communications devices to communicate over the network or other communications medium. The communications between the computer systems may be formatted or arranged in any desired fashion, and may further be encoded or encrypted in any manner for secure communications. The agent, transaction and merchant systems may directly or indirectly communicate with each other in any desired fashion.

The definition table and databases may be implemented by any quantity of conventional or other databases or storage structures (e.g., file, data structure, etc.), may be arranged in any fashion and may store any desired information. The definition table may associate the merchant address, URL or other information with any quantity of any desired information or keys (e.g., merchant name, telephone number, identifier or code, etc.).

It is to be understood that the software for the computer systems may be implemented in any desired computer language and could be developed by one of ordinary skill in the computer arts based on the functional descriptions contained in the specification and flow charts illustrated in the drawings. The software and/or algorithms described above and illustrated in the flow charts may be modified in any manner that accomplishes the functions described herein.

The transaction system may verify a user or agent system in any desired manner via any suitable information (e.g., identification and passwords, codes, keys, encryption, etc.). The verification may utilize any quantity of screens or pages that may be arranged in any fashion and request any desired information. The screens or pages may be transmitted to the transaction system in response to any desired actuation (e.g., screen button, keyboard, voice command, touch screen, etc.). The options list may include any quantity of any desired transactions or merchants or any other information, and may be arranged in any desired fashion. The list may be transmitted and/or displayed in any desired form (e.g., web page,

1 menu, line prompt, etc.), while an option may be selected in any desired fashion (e.g., mouse,
2 keyboard, voice recognition, touch screen, etc.) with any desired information being sent to the
3 transaction system identifying the selected transaction (e.g., transaction identifier, merchant
4 information, etc.). Alternatively, the consumer may search for a particular merchant,
5 transaction or goods and/or services using key words. The searches may be performed by the
6 transaction system or by a search engine (e.g., Lycos, Excite, Alta Vista, etc.) and enable a
7 consumer to indicate a selection from the results list in order to facilitate a transaction in the
8 manner described above.

9 The transaction system may receive and utilize any information to determine the
10 particular merchant system for the selected transaction (e.g., transaction identifier indicating
11 a particular merchant, merchant name, etc.) and to look up the merchant system or web site
12 address in the definition table or other data storage structure. The transaction system may
13 access the merchant web site and page in any desired manner and may verify web pages or
14 other information received from a merchant system in any desired fashion (e.g., examine web
15 page code, transfer and verification of web page identifiers, etc.). Further, the transaction
16 system may examine any quantity of merchant web pages in any desired fashion in order to
17 determine the information required for a transaction (e.g., examine code implementing web
18 pages, the merchant system may provide an indication of the required information, etc.).

19 The transaction system database may include any quantity of entry screens or web
20 pages for requesting information. The entry screens may be individually created by the
21 transaction system in response to each transaction, may be pre-generated with particular fields
22 where the transaction system retrieves the appropriate screen from the database based on the
23 information required for the transaction, or may be pre-generated in generic form where a
24 particular generic screen may be retrieved from the database and modified to request the
25 transaction information. The entry screen may be arranged in any fashion, may include any
26 quantity of fields and may include any desired information (e.g., request any information,
27 include promotional ads, display any desired information, etc.). Further, the entry screen and
28 other displays (e.g., verification pages, confirmation, etc.) may be implemented by windows,
29 graphical user interfaces, line prompting or any other data entry and display techniques.
30 Information may be entered within the entry screen via any suitable input device (e.g., touch
31 screen, keyboard, mouse, voice recognition, scanner, etc.). The scanner may be of any type
32 and may retrieve information from any type of card, statement or identification (e.g., billing

statement, drivers license, credit card, membership card, etc.), wherein the scanned item may be printed or encoded in any manner capable of being read by any type of scanner utilized by the agent system for data entry. The completed entry screen may be transmitted to the transaction system in response to any desired actuation (e.g., screen button, keyboard, voice command, touch screen, etc.).

Payment may be tendered at any time during a transaction and in any desired fashion at the agent sites (e.g., cash, check or other negotiable instrument, credit, debit or smart card, etc.). Credit and other cards may be utilized to tender payments at the agent site, thereby obviating transmission of consumer financial card information over the network. The agent system may indicate any amount due, underpayment or overpayment for a transaction on the entry or other screen in any desired fashion, while the system may account for partial payments of bills or other transactions. The agent system may include any conventional or other mechanisms for accepting and/or disbursing payments (e.g., cash register, credit card or other terminal, automated acceptance and disbursing mechanisms, etc.) in any desired form (e.g., cash, check or other instruments, etc.).

The transaction system may extract information from the completed entry screen in any desired fashion. The entry screen fields may be associated with any desired identifiers and correspond to any desired fields in the merchant web page. Alternatively, the transaction system may correlate fields between the merchant web page and entry screen in any desired fashion (e.g., keys, tables, identifiers, etc.). The requested information may be inserted in the merchant web page in any desired fashion. Alternatively, the transaction information may be sent to the merchant system in any desired manner or arrangement (e.g., sent as a data block or packet without the web page, etc.). The transaction system may request any additional or desired information from the agent system in any manner or transmit any desired additional information or pages to the merchant system in order to conduct a transaction. The transaction system may insert into the merchant web page or transmit to the merchant system any desired payment information (e.g., credit or other card, bank routing number, etc.) of the transaction service provider or any other party in order to tender payment for the transaction.

The agent and transaction systems may generate any types of closeout or other reports at any suitable time interval or upon initiation by a user. The reports may include any desired information for any desired time interval and may be arranged in any desired fashion. The agent and transaction systems may store any desired information and may further perform any

1 type of audit processing on the stored transaction information.

2 The merchant system may process the received transaction information in any desired
3 fashion and perform any suitable transaction processing (e.g., verify funds and payment,
4 update customer account or other balances, post the transaction, etc.). The merchant system
5 may generate any type of confirmation information to confirm transaction processing. The
6 confirmation information may include any desired information (e.g., any type of confirmation
7 and/or transaction identifier, date, time, transaction type, merchant, transaction amount, etc.)
8 and may be transmitted to the transaction system in any desired format. Alternatively, the
9 confirmation information may be transmitted from the merchant system directly to the agent
10 system via any communications medium. The transaction system may generate confirmation
11 and receipt information in any desired format for transference to and display and printing by
12 the agent system. The agent system may display any portion or the entirety of the
13 confirmation information, and may display that information in any desired arrangement or
14 fashion. The receipt information may include any desired information (e.g., confirmation
15 and/or transaction identifier, date, time, transaction type, merchant, transaction amount, etc.).
16 The agent system may print any portion or the entirety of the receipt information, while the
17 receipt may include that information arranged in any desired fashion. The receipt may be sent
18 to the customer in any desired manner (e.g., presented at the agent site, e-mail, ground mail,
19 etc.). The various identifiers (e.g., field, transaction, confirmation, etc.) may include any
20 quantity of any alphanumeric characters or other symbols.

21 The present invention is not limited to the specific applications disclosed herein, but
22 may be utilized for any desired transactions (e.g., bill payment to various merchants/creditors
23 (e.g., utilities, municipalities, government, credit card companies, etc.), purchase of goods
24 and/or services, installment and/or loan payments, etc.).

25 From the foregoing description it will be appreciated that invention makes available
26 a novel method and apparatus for facilitating manual payments for transactions conducted
27 over a network, wherein a transaction server system is in communication with agent and
28 merchant systems and serves as an interface or transaction manager to transfer transaction
29 information between the agent and merchant systems in order to facilitate performance of a
30 transaction with payment being tendered manually at a remote agent site.

31 Having described preferred embodiments of a new and improved method and
32 apparatus for facilitating manual payments for transactions conducted over a network, it is

believed that other modifications, variations and changes will be suggested to those skilled in the art in view of the teachings set forth herein. It is therefore to be understood that all such variations, modifications and changes are believed to fall within the scope of the present invention as defined in the appended claims.

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